REMARKS

Claims 1, 7, 8, 13-16, and 18-28 are currently pending in the present application with claim 1 in independent form. Claims 1, 14-16, 18, 22, and 26-28 are currently amended. Support for the amendments can be found, for example in the specification as filed, for example at paragraph [0028] of the published application and in originally filed claims 13-16. No new matter has been added by these Amendments.

Claim Objections

Claims 18-28 are objected to as being of improper dependent form for failing to further limit the subject matter of a previous claim. Formula IIId of Claim 18 has now been amended and is believed to properly depend from claim 1. Claims 19-28 depend either directly or indirectly from claim 18. Based on the amendment of claim 18, removal of the objection of claims 18-28 is respectfully requested.

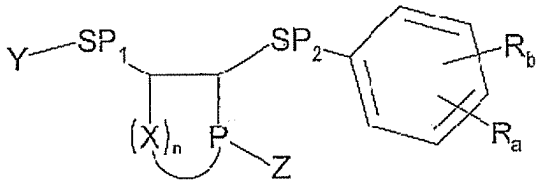
Claim Rejections Under 35 U.S.C. §112

Claims 14-16 and 26-28 have been rejected under 35 U.S.C. §112, first paragraph, because the Examiner asserts that the specification is not enabling for the prevention of arteriosclerosis. However, the Examiner has indicated that the specification is enabling for the treatment of arteriosclerosis and for the reduction of cholesterol levels comprising administering to a subject in need of such treatment an effective amount of a given compound. Therefore, Applicants have deleted the term "prevention" from claims 14-16 and 26-28. As a result of the current amendment, removal of the rejection and allowance of claims 14-16 and 26-28 is respectfully requested.

Claim Rejections Under 35 U.S.C. §102

Claims 1, 7, 8, 13-15, and 18-27 have been rejected under 35 U.S.C. §102(b) as being anticipated by Dugar et al., Bioorg. & Med. Chem. Lett. (1995) 5:2947 (hereinafter "the Dugar reference"). Applicants respectfully traverse this rejection for at least the following reasons.

Claim 1 is directed to a compound according to formula I



I

wherein

P represents -N<; $(X)_n$ represents -OOC-, -COO-, -CONH-, -CH=N-,

R_a represents H, lower alkyl, $-OR_3$, -O (CO) R_3, -O (CO) OR_3, -O (CO) NR_3R_4, $-N_3R_4$, $-NR_3$ (CO) R_4, $-COOR_3$, $-CONR_3R_4$, $-CH=CHCOOR_3$, $-CF_3$, -CN, $-NO_2$, SO_3H, PO_3H or halogen,

wherein

R_3 and R_4 represent H or lower alkyl; R_b represents H, OH, $-OSO_2Me$, $-OSO_2W$

wherein

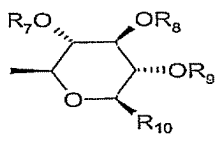
W represents optionally substituted aryl or heteroaryl, $-OCO(CHOH)_2COOR_5$,

wherein

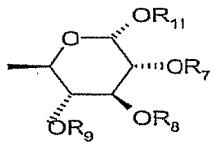
R_5 represents H or lower alkyl; or represents the formula $-Sp_3-R_6$,

wherein

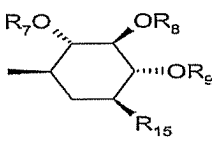
Sp_3 represents a covalent bond, -O-, $-OCH_2-$, $-OSO_2CH_2-$, $-OSO_2-$, $-OSO_2-$ (p) C_6H_4O- and R_6 represents one of carbohydrate structures A-D:



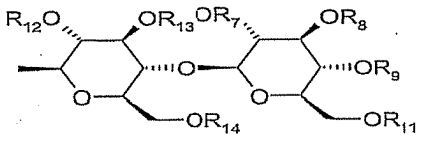
A



B



C



D

wherein

R_7, R_8, R_9, R_{11}, R_{12}, R_{13} and R_{14} represent independently of each other H, lower alkyl, aryl(1ower

alkyl), -CO-lower alkyl, -CO-aryl, $-SO_3-$ or $-PO_3-$, R_{10}represents $-CH_2OR_{16}$ or $-COOR_{17}$, and R_{15} represents $-CH_2OR_{16}$, $-COOR_{17}$, $-CH_2NH_2$, $-CH_2OPO_3-$ or $-CH_2OSO_3-$,

wherein

R_{16} and R_{17} independently of each other represent H, lower alkyl, aryl (lower alkyl), -CO-lower alkyl, -CO-aryl, $-SO_3-$ or $-PO_3-$; Z represents optionally substituted aryl or heteroaryl;

Sp_1 represents a lower alkyl group $-(CH_2)_p-$, wherein p is from 2-6, which is mono or poly-substituted by -OH, $-OR_{18}$, halogen or cyano group, wherein one or more $-CH_2-$ groups may independently be replaced by -O-, -CO-, -CO-O-, -O-CO-, $-NR_{19}-$, $-NR_{19}$-CO-, -CO-$NR_{19}-$, -CH=CH-, -C≡C- -and wherein R_{18} and R_{19} represent a hydrogen atom or lower alkyl; Sp_2 represents a covalent bond or a lower alkyl group $-(CH_2)_q-$, wherein q is from 1-6, which is unsubstituted, mono or poly-substituted by -OH, $-OR_{20}$, halogen or cyano group, wherein one or more $-CH_2-$ groups may independently be replaced by -O-, -CO-, -CO-O-, -O-CO-, $-NR_{21}-$, $-NR_{21}$-CO-, -CO-$NR_{21}-$, -CH=CH-, -C≡C- -and wherein R_{20}, and R_{21}, represents a hydrogen atom or lower alkyl; and Y represents optionally substituted aryl or heteroaryl.

Dugar et al. discloses and compares biological activity of compounds based on β- and γ-lactams and also considers three oxazolidinone structures. All of the compounds taught by the Dugar reference carry the same substituents which are (i) an aryl group each at the N-ring atom and the neighboring C-atom and (ii) an unsubstituted phenyl-C2 or C3-linker at the C-atom neighboring the carbonyl (β/γ-lactam) or carboxyl group (oxazolidinone). The compounds taught by the Dugar reference do not teach or suggest the substituted linkers of Sp_1 as required by the claimed invention. Therefore, the Dugar reference does not teach or suggest each and every limitation of the claimed invention, and claim 1 is not anticipated by the Dugar reference.

Additionally, claims 7, 8, 13-15, and 18-27 depend either directly or indirectly from claim 1 and are therefore not anticipated by the Dugar reference.

Removal of the rejection and allowance of claims 1, 7, 8, 13-15, and 18-27 is respectfully requested.

Claim Rejections Under 35 U.S.C. §103

Claims 16 and 18 are rejected under 35 U.S.C. §103(a) as being obvious in view of the Dugar reference. The Examiner asserts that the Dugar reference discloses that the oxazolidinone compound with CAS# 173927-64-5 is a cholesterol absorption inhibitor and concludes that it would have been obvious to use the compounds of the invention for the same use.

Applicants respectfully disagree. Specifically, the Dugar reference is directed toward an evaluation of an existing cholesterol absorption inhibitor based on a β-lactam ring. The study in the Dugar reference was set out to identify the active component in this known inhibitor by making changes to the ring structure. Thus, the biological activity of compounds having a γ-lactam ring (including an oxazolidinone ring) was compared to this known inhibitor. The results indicate that any change in the ring system led to a major decrease in biological activity. Neither of the compounds came even close to the activity of the known inhibitor. The Dugar reference concluded with the following statement:

> "The poor potency of γ-lactams compared to that of β-lactams leads us to conclude that the azetidindone ring (i.e. the β-lactam) is an integral and essential pharmacophore."

Therefore, based on the teachings of the Dugar reference, one skilled in the art would not consider the oxazolidinone ring to be a structure capable of contribution to cholesterol inhibition.

Moreover, the compounds of the claimed invention are structurally distinct from the compounds taught by the Dugar reference. Additionally, there is no teaching or suggestion by the Dugar reference that a structural change (and, if so, what kind of structural change) would be able to restore any activity that was lost due to the change in ring systems.

For the foregoing reasons, Applicants assert that claims 16 and 18 are not obvious in view of the Dugar reference. Removal of the rejection and allowance of claims 16 and 18 is respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that currently pending claims 1, 7, 8, 13-16, and 18-28 are in condition for allowance. Removal of the rejections and allowance of claims 1, 7, 8, 13-16, and 18-28 is respectfully requested. If there are any remaining issues to be resolved, Applicants request that the Examiner contact the undersigned attorney for a telephone interview.

Respectfully submitted,

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